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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2009-0428; Directorate Identifier 2009-NM-053-AD; Amendment 39-15900; AD 2009-10-05]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Bombardier Model CL-600-2B19 (Regional Jet Series 100 and 440) Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule; request for comments.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

A number of Flap Actuators with P/N [part number] 601R93101-21 and 601R93101-25 were identified as having pinion gears that did not have acceptable certificates of conformance from the supplier. This condition could result in flap failure. \* \* \*

Endurance testing conducted at Eaton Aerospace with representative discrepant gears predicted a 3,000 flight cycle life limit for the affected actuators. Fleet leaders with suspect installed actuators are rapidly approaching this threshold. Failure of the flap actuator pinion gear set could cause the right or left inboard panel to disconnect, which could result in flap asymmetry and consequent reduced controllability of the airplane. This AD requires actions that are intended to address the unsafe condition described in the MCAI.

**DATES:** This AD becomes effective May 28, 2009.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of May 28, 2009.

We must receive comments on this AD by June 12, 2009.

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-40, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Christopher Alfano, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7340; fax (516) 794-5531.

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2009-13, dated March 26, 2009, (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

A number of Flap Actuators with [part number] P/N 601R93101-21 and 601R93101-25 were identified as having pinion gears that did not have acceptable certificates of conformance from the supplier. This condition could result in flap failure. To correct this, operators are required to replace the Inboard Flap Actuators that are non-conforming.

Endurance testing conducted at Eaton Aerospace with representative discrepant gears predicted a 3,000 flight cycle life limit for the affected actuators. Fleet leaders with suspect installed actuators are rapidly approaching this threshold. Failure of the flap actuator pinion gear set could cause the right or left inboard panel to disconnect, which could result in flap asymmetry and consequent reduced controllability of the airplane. You may obtain further information by examining the MCAI in the AD docket.

#### **Relevant Service Information**

Bombardier has issued Section 27-53-01 of the Bombardier (Canadair) Regional Jet Aircraft Maintenance Manual, CSP A-001, Revision 40, dated September 10, 2008, which provides relevant instructions for removing and replacing the subject actuators. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

#### **FAA's Determination and Requirements of This AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information

referenced above. We are issuing this AD because we evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

### **Differences Between the AD and the MCAI or Service Information**

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have required different actions in this AD from those in the MCAI in order to follow FAA policies. Any such differences are highlighted in a Note within the AD.

### **FAA's Determination of the Effective Date**

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because this condition could result in flap failure. Failure of the flap actuator pinion gear set could cause the right or left inboard panel to disconnect, which could result in flap asymmetry and consequent reduced controllability of the airplane. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

### **Comments Invited**

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2009- \* \* \*; Directorate Identifier 2009-NM-053-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new AD:



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**2009-10-05 Bombardier, Inc. (Formerly Canadair):** Amendment 39-15900. Docket No. FAA-2009-0428; Directorate Identifier 2009-NM-053-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective May 28, 2009.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to all Bombardier Model CL-600-2B19 (Regional Jet series 100 and 440) airplanes, certificated in any category, with serial numbers (S/Ns) 7003 and later, equipped with inboard flap actuators part number (P/N) 601R93101-21 (Eaton P/N 852D100-21) or P/N 601R93101-25 (Eaton P/N 852D100-25).

**Subject**

- (d) Air Transport Association (ATA) of America Code 27: Flight controls.

**Reason**

- (e) The mandatory continued airworthiness information (MCAI) states:

"A number of Flap Actuators with P/N [part number] 601R93101-21 and 601R93101-25 were identified as having pinion gears that did not have acceptable certificates of conformance from the supplier. This condition could result in flap failure. To correct this, operators are required to replace the Inboard Flap Actuators that are non-conforming."

Endurance testing conducted at Eaton Aerospace with representative discrepant gears predicted a 3,000 flight cycle life limit for the affected actuators. Fleet leaders with suspect installed actuators are rapidly approaching this threshold. Failure of the flap actuator pinion gear set could cause the right or left inboard panel to disconnect, which could result in flap asymmetry and consequent reduced controllability of the airplane.

**Actions and Compliance**

- (f) Unless already done, do the following actions.

(1) Within 100 flight cycles after the effective date of this AD: Inspect the serial number of each of the flap actuators having P/N 601R93101-21 and P/N 601R93101-25 installed on the airplane. If the serial number of the inspected actuator is listed in paragraph (f)(1)(i) or (f)(1)(ii) of this AD, before further flight, replace the flap actuator with an actuator that has a serial number not listed in paragraph (f)(1)(i), (f)(1)(ii), or (f)(2) of this AD, in accordance with Section 27-53-01 of Bombardier (Canadair) Regional Jet Aircraft Maintenance Manual (AMM), CSP A-001, Revision 40, dated

September 10, 2008. If any of the serial numbers found have a suffix "A," replacement is not required. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number of the flap actuator can be conclusively determined from that review.

(i) For P/N 601R93101-21: Serial numbers 7772, 7773, 7774, 7775, 7776, 7778, 7779, 7780, 7781, 7782, 7784, 7786, 7787, 7788, 7790, 7791, 7793, 7797, 7798, 7799, 7801, 7802, 7803, 7804, 7805, 7806, 7807, 7808, 7810, 7813, 7815, 7816, 7817, 7818, 7819, 7820, 7821, 7825, 7826, 7827, 7828, and 7829.

(ii) For P/N 601R93101-25: Serial numbers 7783 and 7796.

Note 1: Replacing an existing flap actuator P/N 601R93101-21 with a P/N 601R93101-25 that does not have a serial number listed in paragraph (f)(2) of this AD also satisfies the requirements of paragraph (f)(1) of this AD.

(2) Within 500 flight cycles after the effective date of this AD: Inspect the serial number of each of the flap actuators P/N 601R93101-25 installed on the airplane. If the serial number is 3278, 3401, 3512, 3526, 3597, 3599, 3606, 3738, 3806, 3861, 4066, 4284, 4315, 4401, 4499, 4538, 4582, 4658, 4979, 5007, 5094, 6422, 6969, or 7867, before further flight, replace the flap actuator having P/N 601R93101-25 with a flap actuator having a serial number not identified in this paragraph or paragraph (f)(1) of this AD. Do the replacement in accordance with Section 27-53-01 of Bombardier (Canadair) Regional Jet AMM, CSP A-001, Revision 40, dated September 10, 2008. If any of the serial numbers found have a suffix "B," replacement is not required. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number of the flap actuator can be conclusively determined from that review.

(3) As of the effective date of this AD, replacement of a flap actuator having P/N 601R93101-21 or 601R93101-25 with a serial number identified in paragraph (f)(1)(i), (f)(1)(ii), or (f)(2) of this AD is not allowed on any airplane unless the serial number of the actuator listed in paragraph (f)(1)(i) and (f)(1)(ii) of this AD is identified with suffix "A," and the serial number of the actuator listed in paragraph (f)(2) is identified with suffix "B."

Note 2: Serial number suffix "A" or "B" indicates that a conforming gear set has been installed.

## **FAA AD Differences**

Note 3: This AD differs from the MCAI and/or service information as follows: No differences.

## **Other FAA AD Provisions**

(g) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Christopher Alfano, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7340; fax (516) 794-5531. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act, the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

**Related Information**

(h) Refer to TCCA Canadian Airworthiness Directive CF-2009-13, dated March 26, 2009; and Bombardier (Canadair) Regional Jet AMM, CSP A-001, Revision 40, dated September 10, 2008; for related information.

**Material Incorporated by Reference**

(i) You must use Section 27-53-01 of Bombardier (Canadair) Regional Jet AMM, CSP A-001, Revision 40, dated September 10, 2008, as applicable, unless the AD specifies otherwise. Bombardier (Canadair) Regional Jet AMM, CSP A-001, Revision 40, dated September 10, 2008, contains the following effective pages:

<b>List of Effective Pages:</b>			
<b>Page Title/ Description</b>	<b>Page Number(s)</b>	<b>Revision Number</b>	<b>Date Shown on Page(s)</b>
AMM Title Page	None shown	40	September 10, 2008
Organization of Manual	1–3	None shown*	September 10, 2008
Record of Revisions	1	40	September 10, 2008
Chapter 27 List of Effective Pages			
	1–30	None shown*	September 10, 2008
Section 27-53-01			
	401, 410–416	None shown*	September 10, 2008
	402–410	None shown*	April 20, 2004

(\* The revision level of this document is specified only on the title page and Record of Revisions page.)

(1) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; e-mail thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>.

(2) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

(3) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on April 30, 2009.  
 Stephen P. Boyd,  
 Acting Manager, Transport Airplane Directorate,  
 Aircraft Certification Service.